December 6, 1951

Dr. Henry J. Vogel Tbc Res Lab 411 E. 69 Street New York 21, N.Y.

Dear Dr. Vogel:

In answer to your letter of the 5th, I must admit that I have never had a penicillin-resistant mutant of K-12 (for not having looked)(E. coli), and therefore can not answer your question about its possible dominance.

I am, howevery very much interested in the dominance relationships of drug-resistance. If you would care to send me a penicillin-resistant mutant in either the B-M- or T-L-B<sub>1</sub>- auxotroph lines of E. coli K-12, I would be glad to try to put it into a heterozygote and test. It would not matter too guch if the resistant mutant were a single- or multi-step, so long as it could be easily differentiated from the parent sensitive. If you can provide such a mutant then, I would also appreciate your specifications on its behavior.

Yours sincerely,

Joshua Lederberg

P.S. I'll give you 2:1 that the resistance is recessive.